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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,591	07/13/2001	Ken Kishida	04329.2607	9579

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EXAMINER	
WU, XIAO MIN	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,591	KISHIDA ET AL.	
	Examiner	Art Unit	
	XIAO M. WU	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 28-29, 33-34, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamakura et al. (US Patent NO. 6,172,657) in view of Johnson-Williams et al. (US Patent No. 5,523,886).

As to claims 28 and 33, Kamakura discloses a computer system comprising: a wearable computer main body (105b, Fig. 13); and a wearable display device (103, Fig. 13) provided independently of the wearable computer main body, each of the wearable display device and the wearable computer main body having a communication interface to communicate with each other by radio (see Figs. 13 and 14), the wearable display device including; a display monitor (103, Fig. 13); a memory (504 RAM, Fig. 14); and a display controller (505, Fig. 14) to controls

the display monitor, wherein the display controller draws in memory data to be displayed on the display monitor based on drawing command information that is transmitted by radio from the wearable computer main body and received by the communication interface of the wearable display device (see Figs. 13 and 14).

It is noted that Kamakura does not specifically disclose that the memory (RAM) is a VRAM and a display controller repeatedly reads out the display data from the memory, converts the read-put display data to display data for refreshing, and supplies the converted display data to the display monitor. Johnson-Williams is cited tot each a head-mounted display similar to Kamakura. Johnson-Williams further discloses using a VRAM (116, 118, Fig. 1A) as memory for the wearable computer and a display controller (112, Fig. 1A) repeatedly reads out the display data from the memory, converts the read-put display data to display data for refreshing, and supplies the converted display data to the display monitor (see col. 3, lines 32-46). It would have been obvious to one of ordinary skill in the art to have modified Kamakura with the features of the VRAM and a refreshing circuit as taught by Johnson-Williams for the memory (RAM) of Kamakura because the VRAM can store more dynamic data such as video data.

As to claim 29, Kamakura discloses the wearable display device has a headset-mounted casing wearable on a person's head (see Fig. 13).

As to claim 34, Kamakura discloses that the communication interface (Fig. 15(a), 15(b) works as a bus bridge for interconnection between a bus in the wearable computer main body and a bus in the display device (e.g. the signals Y+H, (B-Y) and (R-Y)+V) are transmitted from the main computer to the display device.

As to claim 36, Kamakura further discloses the control section including a microcomputer (508, 510, 511, Fig. 14) to control the communication interface and display controller (see Fig. 14).

As to claim 37, Kamakura further discloses the control section recognizes a voice signal input from a microphone (108, Fig. 1b) and transmits a recognition results as an operation control command to the computer main body via the communication interface ((see col. 5, lines 55-57).

4. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamakura et al. (US Patent NO. 6,172,657) in view of Johnson-Williams et al. (US Patent No. 5,523,886). as applied to claims 28-29 above, and further in view of Ruppert et al. (US Patent NO. 6,236,969).

As to claims 30-32, it is noted that Kamakura further discloses a microphone (108, Fig. 1b) which is used as a voice input means to a give a voice instruction to the control circuit unit 105 (see col. 5, lines 55-57). It is noted that Kamakura and Johnson-Williams do not specifically disclose a speaker, a voice recognition unit and a converting unit to convert a voice input from the microphone to a digital signal. Ruppert is cited to a wearable communication device similar to both Kamakura and Johnson-Williams. Ruppert further discloses a speaker (20, Fig. 5), a voice recognition unit (100, Fig. 5) and a converting unit (100, 101, Fig. 5) to convert a voice input from the microphone to a digital signal (see col. 8, lines 1-11). It would have been obvious to one of ordinary skill in the art to have modified Kamakura and Johnson-Williams with the features of the speaker, voice recognition unit and converting unit as taught by Ruppert so as to provide an effective audio communication between the headset and the computer main body.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamakura et al. (US Patent NO. 6,172,657) in view of Johnson-Williams et al. (US Patent No. 5,523,886). as applied to claim 30 above, and further in view of Kim (US Patent NO. 6,091,419).

As to claim 35, it is noted that both Kamakura and Johnson-Williams do not specifically disclose a graphics accelerator. However, using a graphic accelerator for a video display is well known in the art such as taught by Kim (see col. 1, lines 13-35). It would have been obvious to one of ordinary skill in the art to have modified Kamakura as modified with the features of the graphics accelerator as taught by Kim because the graphics accelerators provide the ability to quickly move data to video memory from other places in the computer (col. 1, lines 13-15).

Response to Arguments

6. Applicant's arguments with respect to claims 28-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.
March 20, 2006

XIAO M. WU
Primary Examiner
Art Unit 2629